Application No.: 10/600,676

Office Action Dated: May 17, 2005

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

(original) A method for forming a winding for a three-phase transformer, 1.

comprising:

winding an electrical conductor into a first plurality turns in side by side

relationship to form a first layer of turns;

covering at least a portion of the first layer of turns with a layer of insulating

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material without end fill;

winding the electrical conductor into a second plurality turns in side by side

relationship to form a second layer of turns that overlies the first layer of turns and the layer

of insulation; and

at least one of bending the electrical conductor to form an offset in the

electrical conductor at a transition in the electrical conductor between the first

layer of turns and the second layer of turns, and securing the transition in the

electrical conductor to at least one of the first plurality of turns, wherein the

electrical conductor is one of:

wound into the first and second pluralities of turns over a winding leg

of a core of the three-phase transformer; and

wound into the first and second pluralities of turns over a mandrel and

subsequently installed on the winding leg.

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2. (original) The method of claim 1, wherein securing the transition in the

electrical conductor to at least one of the first plurality of turns comprises adhesively bonding

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the transition in the electrical conductor to the at least one of the first plurality of turns.

3. (original) The method of claim 1, wherein securing the transition in the

electrical conductor to at least one of the first plurality of turns comprises tying the transition

in the electrical conductor to at least one of the first plurality of turns.

4. The method of claim 1, further comprising flattening the (original)

electrical conductor.

5. (original) The method of claim 1, wherein bending the electrical

conductor to form an offset in the electrical conductor at a transition in the electrical

conductor between the first layer of turns and the second layer of turns comprises bending the

electrical conductor upwardly and laterally in relation to the first layer of turns so that a first

of the second plurality of turns overlies a portion of the first layer of turns.

6. (original) The method of claim 1, wherein bending the electrical

conductor to form an offset in the electrical conductor at a transition in the electrical

conductor between the first layer of turns and the second layer of turns comprises bending the

conductor so that an end of a last of the first plurality of turns is offset from a beginning of a

first of the second plurality of turns.

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The method of claim 1, wherein covering at least a portion of (original)

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the first layer of turns with a layer of insulating material without end fill comprises placing a

sheet of the insulation without end fill around the first layer of turns.

8. The method of claim 1, wherein covering at least a portion of (original)

the first layer of turns with a layer of insulating material without end fill comprises covering

the at least a portion of the first layer of turns with insulating material formed from paper.

9. (original) The method of claim 1, further comprising melting and curing

adhesive on the layer of insulating material.

10. (original) A method for forming a transformer winding for a three-phase

transformer, comprising:

winding an electrical conductor into a first plurality turns in side by side

relationship to form a first layer turns;

bending a first portion of the electrical conductor upwardly and laterally in

relation to the first layer of turns so that a second portion of the electrical conductor

immediately following the first portion of the electrical conductor overlies the first layer of

turns; and

subsequently winding the electrical conductor into a second plurality

turns in side by side relationship to form a second layer of turns, wherein the

electrical conductor is one of:

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wound into the first and second pluralities of turns over awinding leg

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of a core of the three-phase transformer; and

wound into the first and second pluralities of turns over a mandrel and

subsequently installed on the winding leg.

11. (original) The method of claim 10, further comprising covering the first

layer of turns with an insulating material without end fill.

12. (original) The method of claim 11, wherein covering the first layer of

turns with an insulating material without end fill comprises covering the first layer of turns

with a sheet of insulating material formed from paper.

13. (original) The method of claim 11, wherein subsequently winding the

electrical conductor into a second plurality turns in side by side relationship to form a second

layer of turns comprises winding the electrical conductor so that the second layer of turns

overlies the first layer of turns and the insulating material.

14. (original) The method of claim 10, further comprising securing the first

portion of the electrical conductor to the first layer turns.

15. (original) The method of claim 14, wherein securing the first portion of

the electrical conductor to the first layer of turns comprises at least one of adhesively bonding

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the first portion of the electrical conductor to the first layer of turns, and tying the first portion

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of the electrical conductor to the first layer of turns.

16. The method of claim 10, further comprising flattening the (original)

electrical conductor.

17. (withdrawn) A three-phase transformer, comprising a first, a second, and a

third winding leg, and a first, a second, and a third winding positioned around the respective

first, second, and third winding legs, the first, second, and third windings each comprising an

electrical conductor wound into a plurality of overlapping layers each formed by a plurality

of adjacent turns of the electrical conductor, and an insulating material without end fill

positioned between each of the overlapping layers, wherein the electrical conductor has a

transition portion formed therein between a first and a second of the overlapping layers, and

the transition portion is at least one of (i) bent to form an offset in the electrical conductor,

and (ii) secured to at least one of the plurality of adjacent turns.

18. The transformer of claim 17, wherein the transition portion is (withdrawn)

secured to the at least one of the plurality of adjacent turns by an adhesive joint.

19. (withdrawn) The transformer of claim 17, wherein the transition portion is

secured to the at least one of the plurality of adjacent turns by tying the transition portion to

the at least one of the plurality of adjacent turns.

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20. (withdrawn) The transformer of claim 17, wherein the electrical conductor is

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flattened.

21. (withdrawn) The transformer of claim 17, wherein the transition portion is

bent upwardly and laterally in relation to the first of the overlapping layers so that a first of

the adjacent turns in the second overlapping layer overlies a portion of the first overlapping

layer.

22. (withdrawn) The transformer of claim 17, wherein a last of the plurality of

adjacent turns in the first overlapping layer is offset from a beginning of a first of the

plurality of adjacent turns in the second overlapping layer.

23. (withdrawn) The transformer of claim 17, further comprising a fourth, a

fifth, and a sixth winding positioned around the respective first, second, and third winding

legs.